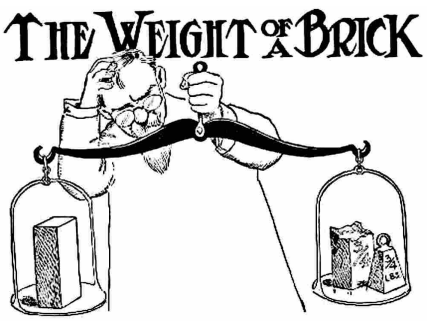
Problem A: The Weight of a Brick

Side note: for more information about this contest, please visit this website.

If a brick balances with three quarters of a brick and three quarters of a pound — then how much does a brick weigh?



Weighing a brick

Now consider the general problem: you have a balance with a whole brick on one side, and on the other side there is an arbitrary fraction Q_1 of a brick and an arbitrary fraction Q_2 of a pound. Calculate the weight of a brick.

Input

Input starts with a positive integer **T**, that denotes the number of test cases.

Each test case contains four integers **a**, **b**, **c** and **d**, given in a single line with the following format:

```
a/b c/d
```

Where $Q_1 = a \div b$ and $Q_2 = c \div d$. That is, the four numbers represent the fractions of the brick and the pound, in that order, that balance a complete brick.

$T \leq 10^4$; $0 < a < b \leq 10^4$; $0 < c < d \leq 10^4$

Output

For each test case, print the case number followed by the weight in pounds of one whole brick. If this number is not an integer, print it as a fraction `p/q` where p and q are coprimes.

Sample Input	Output for Sample Input
2 3/4 3/4 1/2 3/5	Case 1: 3 Case 2: 6/5